



RCE
JAW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of : **Confirmation No. 3348**
Curt ZIMMERMANN et al. : Attorney Docket No. 2001_0662A
Serial No. 09/857,416 : Group Art Unit 1623
Filed June 4, 2001 : Examiner Patrick T. Lewis

PROCESS FOR PREPARING **Mail Stop: RCE**
GLYOXYLIC ESTERS OR
THEIR HYDRATES

LETTER RE: SUBMISSION OF FEBRUARY 14, 2006

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Further to the submission filed on February 14, 2006, please see the following Comparative Example, which shows that the process according to Krasik provides a lower yield than the present process (Example 1b).

Transesterification of glyoxylic acid methyl ester dimethyl acetal to L-menthyl glyoxylate dimethyl acetal according to Krasik.

268 g (2.0 mol) of glyoxylic acid methyl ester dimethyl acetal, 438 g (2.8 mol) of L-menthol and 45.7 g of titanium(IV) ethoxide were heated in a distillation apparatus consisting of a bottom vessel, stirrer, thermometer and a distillation column, to 80°C. Methanol formed by the transesterification was taken off continuously at the top of the column at a pressure of 180 mbar. After 18 hours the reaction was complete.

21.6 g water was added to the reaction mixture, which was then distilled in a short-path evaporator at 10 mbar, yielding 580 g distillate and 137 g viscous residue at the bottom.

The distillate was then fractionally distilled under reduced pressure yielding 372 g L-menthyl glyoxylate dimethyl acetal having a content of 98%. The yield, based on glyoxylic acid methyl ester dimethyl acetal was 71% of theory.

This example can be provided in Rule 132 Declaration form, if necessary.

In view of the submission of February 14, 2006 as well as the attached comparative example, favorable action is now requested.

Respectfully submitted,

Curt ZIMMERMANN et al.

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TO CHARGE ANY DEFICIENCY IN THE
FEES FOR THIS PAPER TO DEPOSIT
ACCOUNT NO. 23-0975

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